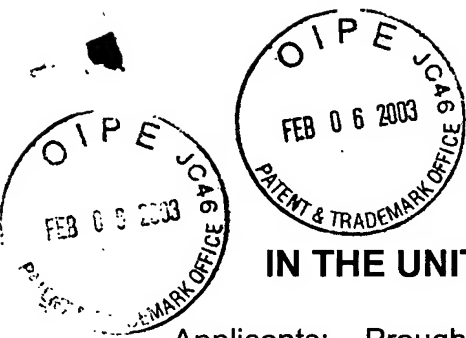


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Prough, et al. Attorney Ref.: 2065.005A
Serial No.: 10/042,718 Group Art Unit: 1731
Filed: July 16, 2002 Examiner: To be assigned
Title: **SYSTEM AND METHOD FOR IMPROVING THE MOVEMENT AND
DISCHARGE OF MATERIAL FROM VESSELS**

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To: Commissioner for Patents
Washington, D.C. 20231

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.56 AND 1.97**

Dear Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, Applicant submits herewith the statement below and an Information Disclosure Citation identifying (1) an excerpt from a manual entitled Digester Update, 10th Edition (herein "the Digester Update") and (2) an excerpt from Rules for Construction of Pressure Vessels (herein "the Code") for consideration by the Examiner. No Office Action has yet been received for this application; therefore, this Statement is being timely filed and no fee is due therefor.

The Applicant submits that counterwash nozzles are recognized features of the art of continuous digesting of wood to make cellulose pulp. As illustrated in Figures 4.1 and 4.2 in the Digester Update, counterwash nozzles are typically positioned in the lower head of a continuous digester.

The Applicant hereby acknowledges that the Applicant has now discovered that certain existing continuous digester vessels include counterwash nozzles at a location in the lower head of a continuous digester that exceeds 80% of the outer diameter of the vessel. The Applicant has done research into the existing art of the placement of counterwash nozzles in continuous digesters. The Applicant has consulted Andritz Inc. of Glens Falls, NY - one of only two providers of continuous digester vessels in the

world. The Applicant has learned that Andritz Inc. has designed and built digester vessels having counterwash nozzles located at a position as much as 81.5% of the outer diameter of the vessel. Andritz informed the Applicant that these continuous digester vessels were built and operated more than one year prior to the filing of the parent provisional application 60/309,332 on August 2, 2001. The Applicant has also been in contact with representatives from International Paper Company (herein "IP") – one of the largest users of continuous digester vessels. IP has informed the Applicant that at one IP digester installation – the pulp mill in Augusta, Mississippi – counterwash nozzles are located at 83% of the outer diameter of the vessel. IP informed the Applicant that the digester vessel in Augusta, Mississippi was built and operated more than one year prior to the filing of the parent provisional application 60/309,332 on August 2, 2001. IP did not identify any installations having counterwash nozzles positioned at a larger percentage of the outer diameter of the vessel.

The Applicant also submits herewith the Code in support of the Applicant's use of the term "knuckle" in the specification and claims of the present invention. The Code is published by the American Society of Mechanical Engineers and provides the accepted guidelines by which all pressure vessels are designed in the United States. In Appendix 1 on pages 315-320 of the Code, formulas are provide for designing formed heads, among other things. In the second column on page 316, the variable "r" is defined as the "inside knuckle radius, in.". An illustration of this radius r is shown in Figure 1-4(b) on page 317 of Appendix 1. Figure 1-4(b) clearly illustrates the inside knuckle radius "r" which is the radius of the transition between the radiused section of the head (having a radius "L") and the cylindrical "skirt" section of the head (having a diameter "D"). Thus, the Applicant submits that the term "knuckle" is a term of the art and is defined as the transition section between the radiused section and the cylindrical section of a formed head as illustrated in Figure 1-4(b) of the Code submitted herewith.

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Serial No.: 10/042,718

Attorney Ref.: 2065.005A

Respectfully submitted,


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Dated: January 30, 2003

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